

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

01/27/2004

FLEHR HOHBACH TEST ALBRITTON & HERBERT LLP **Suite 3400** Four Embarcadero Center San Francisco, CA 94111-4187

EXAMINER CHACE, CHRISTIAN

PAPER NUMBER

ART UNIT 2187

DATE MAILED: 01/27/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,418	11/30/2001	James R. Hsia	A-69632/ESW/WEN	4072

TITLE OF INVENTION: MEMORY MATRIX AND METHOD OF OPERATING THE SAME

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$665	\$300	\$965	04/27/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- ☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTA

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop a SUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax

(703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

7590

01/27/2004

FLEHR HOHBACH TEST ALBRITTON & HERBERT LLP **Suite 3400** Four Embarcadero Center San Francisco, CA 94111-4187

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

_
Certificate of Mailing or Transmission
hereby certify that this Fee(s) Transmittal is being deposited with the United
States Postal Service with sufficient postage for first class mail in an envelope

addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name (Signature) (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,418	11/30/2001	James R. Hsia	A-69632/ESW/WEN	4072

TITLE OF INVENTION: MEMORY MATRIX AND METHOD OF OPERATING THE SAME

APPLN. TYPE	SMALL ENTITY	ISSUE FI	EE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$665		\$300	\$965	04/27/2004
EXAM	MINER	ART UN	IT	CLASS-SUBCLASS	· .	
CHACE, C	CHRISTIAN	2187		711-170000	_	
CFR 1.363).	e address or indication of "Fo	,`	names of	nting on the patent front page, f up to 3 registered patent a R, alternatively, (2) the name	ttorneys or 1 of a single	
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer			agent) an	ring as a member a registered d the names of up to 2 regist	ered patent	
PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			attorneys or agents. If no name is listed, no name will be printed.			

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

				•	
Please check the appropriate assignee category or catego	ries (will not be printed on the patent);	☐ individual	□ corporation or other private group entity	y 🔾 governmen	
4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):				
☐ Issue Fee	☐ A check in the amo	ount of the fee(s)	is enclosed.		
□ Publication Fee	☐ Payment by credit	card. Form PTO-	2038 is attached.		
☐ Advance Order - # of Copies	The Director is he Deposit Account Nur	_ ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayme Deposit Account Number (enclose an extra copy of this form).			
Director for Patents is requested to apply the Issue Fee at	nd Publication Fee (if any) or to re-apply	any previously p	oaid issue fee to the application identified abo	ove.	
(Authorized Signature)	(Date)				
NOTE; The Issue Fee and Publication Fee (if require other than the applicant; a registered attorney or againterest as shown by the records of the United States Pa	ent; or the assignee or other party in				
This collection of information is required by 37 CFR obtain or retain a benefit by the public which is to fi application. Confidentiality is governed by 35 U.S.C. I estimated to take 12 minutes to complete, including grompleted application form to the USPTO. Time will case. Any comments on the amount of time your suggestions for reducing this burden, should be sent Patent and Trademark Office, U.S. Department 22313-1450. DO NOT SEND FEES OR COMPLE SEND TO: Commissioner for Patents, Alexandria, Virgonia and Complete Send Complete Send Commissioner for Patents, Alexandria, Virgonia and Complete Send Commissioner for Patents, Alexandria, Virgonia and Commissioner for Patents.	le (and by the USPTO to process) an 22 and 37 CFR 1.14. This collection is athering, preparing, and submitting the II vary depending upon the individual require to complete this form and/or to the Chief Information Officer, U.S. of Commerce, Alexandria, Virginia TED FORMS TO THIS ADDRESS.				
Under the Paperwork Reduction Act of 1995, no pollection of information unless it displays a valid OM	persons are required to respond to a B control number.				



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandra, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/007,418	11/30/2001	James R. Hsia	A-69632/ESW/WEN	4072		
7:	590 01/27/2004		EXAM	INER		
FLEHR HOHBA	FLEHR HOHBACH TEST ALBRITTON & HERBERT LLP			CHACE, CHRISTIAN		
Suite 3400 Four Embarcadero	Center		ART UNIT	PAPER NUMBER		
San Francisco, CA			2187	7		
			DATE MAILED: 01/27/200	4 /		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 37 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 37 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No.	Applicant(s)	
	10/007,418	HSIA ET AL.	
Notice of Allowability	Examiner	Art Unit	T
	Christian P. Chace	2187	
The MAILING DATE of this communication appeal All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R	(OR REMAINS) CLOSED in a or other appropriate commur IGHTS. This application is su	this application. If not includation will be mailed in due	ded e course. THIS
 This communication is responsive to <u>amendment filed 12/</u> The allowed claim(s) is/are <u>1-22</u>. The drawings filed on <u>30 November 2001</u> are accepted by Acknowledgment is made of a claim for foreign priority under the priority of the pr	the Examiner.	· (f).	
a) All b) Some* c) None of the:	. b		
 Certified copies of the priority documents have Certified copies of the priority documents have 		No	
3. ☐ Copies of the certified copies of the priority do			ation from the
International Bureau (PCT Rule 17.2(a)).	cuments have been received	III tilis riational stage applic	auon nom the
* Certified copies not received:			
 5. Acknowledgment is made of a claim for domestic priority u reference was included in the first sentence of the specifica (a) The translation of the foreign language provisional a 6. Acknowledgment is made of a claim for domestic priority u in the first sentence of the specification or in an Application 	ation or in an Application Data application has been received nder 35 U.S.C. §§ 120 and/or	a Sheet. 37 CFR 1.78.	
Applicant has THREE MONTHS FROM THE "MAILING DATE" or below. Failure to timely comply will result in ABANDONMENT of	f this communication to file a this application. THIS THRE	reply complying with the req	uirements noted TEXTENDABLE
7. A SUBSTITUTE OATH OR DECLARATION must be subminformal PATENT APPLICATION (PTO-152) which give			NOTICE OF
8. CORRECTED DRAWINGS (as "replacement sheets") must (a) including changes required by the Notice of Draftspers 1) hereto or 2) to Paper No		(PTO-948) attached	
(b) including changes required by the proposed drawing of	correction filed, which	has been approved by the	Examiner.
(c) including changes required by the attached Examiner	s Amendment / Comment or i	n the Office action of Paper	No
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t	I.84(c)) should be written on the margin according to 37 CFF	e drawings in the front (not the 1.121(d).	ne back) of
9. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT FOR T			Note the
Attachment(s)			
1 ☐ Notice of References Cited (PTO-892)	5 ☐ Notice of Infor	mal Patent Application (PT	O-152)
2 Notice of Draftperson's Patent Drawing Review (PTO-948)		nmary (PTO-413), Paper No	··
3 Information Disclosure Statements (PTO-1449 or PTO/SB/08 Paper No	^{3),} 7□ Examiner's Ar	mendment/Comment	
4	8∏ Examiner's St 9∏ Other .	atement of Reasons for Allo	owance

Application/Control Number: 10/007,418

Art Unit: 2187

DETAILED ACTION

Response to Amendment

This Office action has been issued in response to amendment filed 11 December 2003.

Applicants' arguments have been carefully and respectfully considered, and they are persuasive.

Allowable Subject Matter

Claims 1-22 are allowed.

As the record is clear, there is no necessity for additional reasons for allowance in this case.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian P. Chace whose telephone number is 703.306.5903. The examiner can normally be reached on 9-4-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 703.308.1756. The fax phone number for the organization where this application or proceeding is assigned is 703.305.3719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.3900.

Christian P. Chace V

DS/cpc

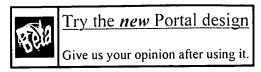
Donald Sparks SPE, 2187

L Number	Hits	Search Text	DB	Time stamp
1	202	(711/121).CCLS.	USPAT;	2004/01/22 13:49
			US-PGPUB;	
			EPO; JPO;	
			IBM_TDB	
2	4	((711/121).CCLS.) and (DAT or ((data adj	USPAT;	2004/01/22 13:51
		allocation) adj table))	US-PGPUB;	
			EPO; JPO;	
			IBM_TDB	
3	0	((711/121).CCLS.) and ((data adj	USPAT;	2004/01/22 13:53
		allocation) adj table)	IIS-POPIIR:	ļ
i		-	EPO; UPO;	i
			IBM_TDB	
4	1257	(711/118).CCLS.	USPAT;	2004/01/22 13:52
			US-PGPUB;	
			EPO; JPO;	
			IBM_TDB	
5	0	((711/118).CCLS.) and ((data adj	USPAT;	2004/01/22 13:52
		allocation) adj table)	US-PGPUB;	
-			EPO; JPO;	
			IBM_TDB	
6	50	((data adj allocation) adj table)	USPAT;	2004/01/22 13:52
		-	US-PGPUB;	
			EPO; JPO;	1
			IBM_TDB	
7	5	((data adj allocation) adj table) with	USPĀT;	2004/01/22 13:52
1		cache	US-PGPUB;	
			EPO; JPO;	
1			IBM_TDB	
l 8	2	((711/121).CCLS.) and (allocation adj	USPAT;	2004/01/22 13:54
		table)	US-PGPUB;	
			EPO; JPO;	
			IBM_TDB	1
9	14	((711/118).CCLS.) and (allocation adj	USPAT;	2004/01/22 13:54
		table)	US-PGPUB;	1
			EPO; JPO;	
			IBM TDB	



> home : > about : > feedback : > login

US Patent & Trademark Office



Advanced Search

- Enter words or phrases separated by commas.
- ◆ All words include stemmed variations unless they are enclosed in "double quotes".
- Use only lower case, unless case sensitivity is required.
- ◆ All items entered will be used as the search criteria. (AND)

Desired Results:	Name or Affiliation:
must have all of the words or phrases memory, banks, cache, DAT	Authored by: • any O all O none
must have any of the words or phrases	Edited by: • any • all • none
must have none of the words or phrases	Reviewed by: • any • all • none
Only search in: Title Abstract Review *Searches will be performed on all available information, including full text where available, unless specified above.	SEARCH
ISBN / ISSN: © Exact C Expand	DOI: © Exact C Expand
Published:	Conference Proceeding:
By: • any • all • none	Sponsored By:
In: © any Call C none	Conference Location:
Since: Month Year Year	Conference Date: mm-dd-yyyy
Before: Month Year	
As: Any type of publication.	

SEARCH

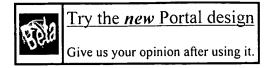
Classification: (CCS) 「Primary Only	Results must have accessible:
Classified as: • any C all O none	☐ Full Text ☐ Abstract ☐ Review
Subject Descriptor: • any Call C none	
Keyword Assigned: © any C all C none	
	SEARC

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2004 ACM, Inc.



> home : > about : > feedback : > login

US Patent & Trademark Office



Search Results

Nothing Found

Your search for the *Phrase* ("data allocation table")<AND> (meta_published_date <= 11-01-2001) did not return any results.

To search for *terms* separate them with **AND** or **OR**. Click on the suggested options:

("data AND allocation AND table") < AND > AND (meta_published_date AND <= AND 11-01-2001 AND)

("data OR allocation OR table") OR (meta_published_date OR <= OR 11-01-2001 OR)

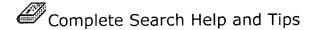
To search for names try using only the last or first name.

You may revise it and try your search again below or click advanced search for more options.

("data allocation table")<AND>
(meta_published_date <= 11-012001)

[SPARCE]

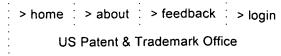
[Advanced Search] [Search Help/Tips]

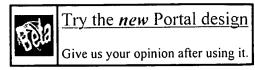


The following characters have specialized meaning:

Special Characters	Description
,()[These characters end a text token.
= > < !	These characters end a text token because they signify the start of a field operator. (! is special: != ends a token.)
` @ \Q < { [!	These characters signify the start of a delimited token. These are terminated by the end character associated with the start character.







Search Results

Nothing Found

Your search for the Phrase ("data allocation table")<AND>(DAT, cache<AND> (((DAT))) <AND>(meta_published_date <= 11-01-2001)) did not return any results.

To search for terms separate them with AND or OR. Click on the suggested options:

("data AND allocation AND table") < AND > (DAT, AND cache < AND > (((DAT)) AND) < AND > (meta_published_date AND <= AND 11-01-2001 AND) AND)

("data OR allocation OR table")(DAT, OR cache(((DAT)) OR) (meta_published_date OR <= OR 11-01-2001 OR) OR)

To search for names try using only the last or first name.

You may revise it and try your search again below or click advanced search for more options.

("data allocation table")<AND> meta_published_date <= 11-01-2001)

[Advanced Search] [Search Help/Tips]



Complete Search Help and Tips

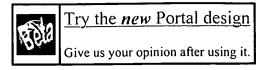
The following characters have specialized meaning:

Special Characters	Description
,()[These characters end a text token.
= > < !	These characters end a text token because they signify the start of a field operator. (! is special: != ends a token.)
@ /Q <	These characters signify the start of a delimited token. These are terminated by the end character associated with the start character.



> home : > about : > feedback : > login

US Patent & Trademark Office



Advanced Search

- Enter words or phrases separated by commas.
- ◆ All words include stemmed variations unless they are enclosed in "double quotes".
- ◆ Use only lower case, unless case sensitivity is required.
- ◆ All items entered will be used as the search criteria. (AND)

Search within Results:	2,038	found
------------------------	-------	-------

4. ah af

DAT, cache<AND>(((DAT)))

<AND>
(meta_published_date <= 11-012001)

-> Clear Result Set

- ◆ This search criteria can be edited directly.
- Any edits will affect the overall search results.
- All additional searches are limited to this result set.

SEARCH

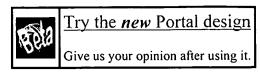
Desired Results:	Name or Affiliation:
must have all of the words or phrases "data allocation table"	Authored by: • any Call C none
must have any of the words or phrases	Edited by: © any Call C none
must have none of the words or phrases	Reviewed by: • any Call C none
Only search in: Title Abstract Review *Searches will be performed on all available information, including full text where available, unless specified above.	SEARGH
ISBN / ISSN: © Exact C Expand	DOI: © Exact C Expand

Conference Proceeding:

By: any Call C none	Sponsored By:
In: © any Call C none Since:	Conference Location: Conference Date:
Month Year	mm-dd-yyyy
Before: Month Year	
As: Any type of publication	
	SEARCH
Classification: (CCS) □ Primary Only	Results must have accessible:
Classification: (CCS) Primary Only Classified as: any all none	Results must have accessible:
Classified as: • any C all C none	

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2004 ACM, Inc.





Advanced Search

- Enter words or phrases separated by commas.
- ◆ All words include stemmed variations unless they are enclosed in "double quotes".
- Use only lower case, unless case sensitivity is required.
- ◆ All items entered will be used as the search criteria. (AND)

Search within Results: 33 found	
(memory AND banks AND cache AND DAT)	 This search criteria can be edited directly. Any edits will affect the overall search results. All additional searches are limited to this result set.
> Clear Result Set	SE'ARCH
Desired Results:	Name or Affiliation:
must have all of the words or phrases	Authored by: • any Call Cnone
must have any of the words or phrases	Edited by: • any Call Cnone
must have none of the words or phrases	Reviewed by: • any O all O none
Only search in: Title Abstract Review *Searches will be performed on all available information, including full text where available, unless specified above.	SEARCH
ISBN / ISSN: ᠖ Exact ○ Expand	DOI: © Exact C Expand

Conference Proceeding:

By: • any C all C none	Sponsored By:
In: • any C all C none Since: Month Year Before: Month Year As: Any type of publication	Conference Location: Conference Date: mm-dd-yyyy
	SEARCH
Classification: (CCS) Primary Only	Results must have accessible:
Classified as: any C all C none	☐ Full Text ☐ Abstract ☐ Review
Subject Descriptor: © any C all C none	
Keyword Assigned: © any C all C none	
J	SEARCH

The ACM Portal is published by the Association for Computing Machinery. Copyright $\mbox{@}$ 2004 ACM, Inc.